

## **Build the Black Box Out of Plexiglass: The *Guidance for Environmental Models* and the Models Knowledge Base**

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You may have asked: “How healthy is our environment?” But did you ever ask: “How do we know?”

The environment may be beautiful in its simplicity, but describing it to make regulatory decisions can be complex. That is why models are built. In order for regulatory decisions to be based on sound science, the insides (and not just the outputs) of models must be understood.

To help achieve model transparency, the U.S. EPA recently released to the public two important work products from the Council for Regulatory Environmental Modeling (CREM). The first product, the *Draft Guidance on the Development, Evaluation, and Application of Regulatory Environmental Models* (known as the *Guidance for Environmental Models*) provides recommendations for model development, evaluation, and application. The second product, the Models Knowledge Base, a publicly-accessible database of information about models, is intended to be a living demonstration of the recommendations from the *Guidance for Environmental Models*.

These complementary products work in tandem to describe and document good modeling practices. By providing access to its tools and methods, the EPA hopes to improve the public’s understanding of how sound science is used to make environmental decisions. In the words of Dr. Paul Gilman, EPA Science Advisor, these products enable the EPA to “build the black box out of plexiglass.” Both the *Guidance for Environmental Models* and the Models Knowledge Base are available on the Internet via the CREM home page: [www.epa.gov/crem](http://www.epa.gov/crem).